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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,707	08/20/2003	Bruce M. Warnes	MP167D1	8473

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07/23/2009

EXAMINER

AUSTIN, AARON

ART UNIT	PAPER NUMBER
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1794

MAIL DATE	DELIVERY MODE
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07/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/645,707

Applicant(s)

WARNES ET AL.

Examiner

AARON S. AUSTIN

Art Unit

1794

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 20,21,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20,21,26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 20-22 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 7, and 8 of U.S. Patent No. 5,989,733. Although the conflicting claims are not identical, they are not patentably distinct from each other. '733 and the instant claims differ in that '733 includes nickel as an additive. However, it was well known in the art at the time of the invention to include nickel as an additive in diffusion coatings (see abstract of 6,291,014). Therefore it would have been obvious to a person having ordinary skill in the art at the time of the invention to include nickel as a possible additive in the instant claimed coating with the reasonable expectation of success.

***Claim Rejections - 35 USC § 102 and 103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20-21 and 26-27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Liburdi et al. (US 5,139,824).

Liburdi et al. teach an aluminide diffusion coating deposited by CVD (column 3, lines 61-66 and column 4, lines 7-11). The aluminide coating undergoes interdiffusion with transition metals including zirconium, yttrium, and hafnium alone and in combination (column 4, lines 12-42). During the interdiffusion step, the transition metals will progress from a coating region of the aluminide where the metals and the aluminide meet to a thorough distribution throughout the aluminide over time.

*In the alternative*, while Liburdi et al. disclose zirconium, yttrium, and hafnium alone and in combination, these transition metals are not specifically selected independently or in the Examples. However, the list of possible transition metals provided by Liburdi et al. is a finite list from which one of ordinary skill in the art is able to arrive at the claimed elements of zirconium, yttrium, and hafnium without excessive experimentation. As such, it would be obvious to one of ordinary skill in the art to select zirconium, yttrium, and hafnium under the teachings of Liburdi et al. and arrive at the claimed combination of zirconium, yttrium, and hafnium alone or in combination.

Regarding claim 21, yttrium can be included as one of the transition metals interdiffused into the aluminide (column 4, lines 39-40).

Regarding claim 26, hafnium can be included as one of the transition metals interdiffused into the aluminide (column 4, line 40).

Regarding claim 27, zirconium can be included as one of the transition metals interdiffused into the aluminide (column 4, line 40).

Claims 20-21 and 26-27 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Liburdi et al. (US 5,292,594).

Liburdi et al. teach an aluminide diffusion coating deposited by CVD (column 3, lines 63-68 and column 4, lines 9-13). The aluminide coating undergoes interdiffusion with transition metals including zirconium, yttrium, and hafnium alone and in combination (column 4, lines 14-44). During the interdiffusion step, the transition metals

will progress from a coating region of the aluminide where the metals and the aluminide meet to a thorough distribution throughout the aluminide over time.

*In the alternative*, while Liburdi et al. disclose zirconium, yttrium, and hafnium alone and in combination, these transition metals are not specifically selected independently or in the Examples. However, the list of possible transition metals provided by Liburdi et al. is a finite list from which one of ordinary skill in the art is able to arrive at the claimed elements of zirconium, yttrium, and hafnium without excessive experimentation. As such, it would be obvious to one of ordinary skill in the art to select zirconium, yttrium, and hafnium under the teachings of Liburdi et al. and arrive at the claimed combination of zirconium, yttrium, and hafnium alone or in combination.

Regarding claim 21, yttrium can be included as one of the transition metals interdiffused into the aluminide (column 4, lines 41-42).

Regarding claim 26, hafnium can be included as one of the transition metals interdiffused into the aluminide (column 4, line 42).

Regarding claim 27, zirconium can be included as one of the transition metals interdiffused into the aluminide (column 4, line 42).

### ***Response to Arguments***

Applicant's arguments, see the Remarks, filed 6/19/09, with respect to the previous rejections over Murphy (US 6,689,487), over Warnes et al. (US 6,291,014), and the double patenting rejection over US 6,129,991 have been fully considered and are persuasive. These rejections have been withdrawn.

Applicant's arguments filed with respect to the double patenting rejection over US 5,989,733 have been fully considered but they are not persuasive.

In particular, Applicant argues the patent is not a proper reference as it does not predate the present application. However, this argument does not overcome a double patenting rejection. The claims must be differentiated from the patent or a terminal disclaimer must be filed. For this reason the rejection is maintained.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON S. AUSTIN whose telephone number is (571)272-8935. The examiner can normally be reached on Monday-Friday: 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron S Austin/  
Examiner, Art Unit 1794